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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/734,761

12/13/2000

Cha-Mei Tang

40797

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7590

06/06/2002

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EXAMINER

CHURCH, CRAIG E

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 06/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09734761

Applicant(s)

Examiner

Group Art Unit

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 5/2/02

☒ This action is FINAL.

- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-45 is/are pending in the application.

Of the above claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-45 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

Claims 1-30 and 37-45 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limiting meaning of "projection" is unclear. The disclosure does not describe projections but rather a thickening of the walls at wall intersections.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-30 and 37-45 are rejected under 35 U.S.C. § 103 as being unpatentable over McGann et al (5263075) cited by applicant. McGann teaches an unfocussed x-ray grid formed of stacked lead layers 38 having round holes 40 therethrough placed along perpendicular intersecting lines (figure 7). The regions adjacent intersecting walls of McGann's grid correspond to applicant's

"projections".

Claims 31-36 are rejected under 35 U.S.C. § 103 as being unpatentable over Logan (5418833) cited by applicant. Logan teaches an x-ray grid having nonsquare apertures (figure 4), and lines 58-60 of column 1 explain that such grids are typically moved during imaging.

Applicant's arguments filed May 2, 2002 have been fully considered, but they are not deemed to be persuasive. It is noted that even though page 7 states new claims have been added, they have not, and the original claims have not been amended.

Examiner agrees with applicant's proclamation (page 3) that

In determining the meaning of patent claims, words in a claim will be given their ordinary or accustomed meaning unless it appears that the inventor used them differently.

Webster's New World Dictionary states:

projection implies a jutting out abruptly beyond the rest of the surface (the projection of the eaves beyond the sides of a house)

While applicant may argue that figure 8 illustrates such a jutting out, this is really an intersection of walls, or a change in wall direction if one considers only the interior surface of the openings. The embodiment of figures 10, 13 and 17 clearly comprises gradual (not abrupt) surface changes.

While it is clearly applicant's prerogative to define his invention as he sees fit, the invention from a technological perspective is not grounded in wall projections but rather in the nature of the intersections of the walls. None of applicant's

figures depict wall projections between the intersections. If the instant disclosure embodies novelty, it rests in the structure of the wall intersections, and yet none of the claims reflect this realization. The limitations discussed on page 4 of the response do not appear in the claims and certainly are not embraced by the term "projection".

It is acknowledged that the walls of McGann's apertures do not comprise projections as envisioned by Webster, but the McGann patent is applied with the understanding that applicant employs the term "projection" to refer to thick sections of wall at wall intersections because this is what applicant has shown even though he misuses the term "projection". McGann's layers coincidentally include thicker wall portions at intersections by virtue of the openings being round. I.e. lines drawn diagonally through the centers of apertures in McGann's figures 7a and 7b will traverse thicker wall segments than will lines that are drawn vertically or horizontally through the centers. It is recommended that applicant concentrate on reciting the nature of his intersections, and it is believed that sufficient specificity can overcome the McGann patent. The limitations discussed on page 4 of the response do not appear in the claims and certainly are not embraced by the term "projection".

While applicant correctly points out that the McGann antiscatter plates are leaded glass rather than lead per se (a metal), the significant character of applicant's grid layers is not

that they are made of metal as claimed, but that they are capable of absorbing x rays in the imaging energy range of interest such as 20-120 kev. Aluminum and beryllium, for example, are metals; but they are not capable of absorbing this radiation; and a grid fabricated from these materials would be inoperative. Rather what is germane to applicant's invention is that the layer material is of a sufficiently high density or atomic weight as to be x-ray attenuating. This fundamental principle of radiation physics is explicitly emphasized by McGann in lines 28-32 of column 4 and line 67 of column 4 to line 3 of column 5. Often suitable materials comprise high density metals including lead, tungsten, molybdenum and steel, but the metallic limitation claimed by applicant is not key to x-ray absorption nor to patentability.

Applicant misrepresents the Logan patent in arguing that Logan's grooves are only coated but not filled to form integrated walls, as lines 67 et seq of column 4 explain

If desired the grooves or slots of the FIG. 2 embodiment can be filled with the high x-ray opacity or x-ray attenuating material. The attenuating material can be applied by many known processes such as ... casting...

Furthermore lines 55 and 56 of column 4 reveal that the openings may go all the way through the substrate. Such a cast structure of crossed partitions would comprise a metal layer with top and bottom surfaces and solid integrated walls as claimed by applicant and alleged not to be taught by the patent.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

Serial No. 734,761
Art Unit 2882

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A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication should be directed to Examiner Church at telephone number (703) 308-4861.

Craig E Church

CRAIG E. CHURCH
Senior Examiner
ART UNIT 2882